DOCUMENT RESUME

ED 250 509 CE 040 022

TITLE	1981 Employer Follow-Up Survey of 1980 Completers and Leavers.
INSTITUTION	Instructional Development and Evaluation Associates, Inc., Berkeley, Mich.
SPONS AGENCY	Michigan State Dept. of Education, Lansing. Vocational-Technical Education Service.
PUB DATE	Sep 81
NOTE	69p.
PUB TYPE	Reports - Research/Technical (143)
EDRS PRICE	MF01/PC03 Plus Postage.
DESCRIPTORS	Comparative Analysis; Cost Effectiveness; Data Collection; Educational Benefits; Employer Attitudes; *Followup Studies; Influences; *Job Performance; *Outcomes of Education; Questionnaires; Research Methodology; Secondary Education; State Surveys; *Vocational Education
IDENTIFIERS	*Employer Surveys; Mail Surveys; *Michigan; Telephone Surveys

ABSTRACT

A study examined the perceptions of employers in Michigan concerning the vocational training received by employees who either completed or left vocational training programs in 1980. A second objective of the study was to compare the relative cost and effectiveness of using telephone and mail surveys to gather data for this type of study. Of a total of 2,553 Michigan employers identified as employing a recent participant in a vocational training program, 2,402 were contacted. When asked to rate the vocational training received by the former students in terms of technical knowledge, work attitude, and work quality (on a scale of 1 to 5, with 1 being very poor and 5 being very good), employers supplied the following mean ratings: technical knowledge received a mean rating of 4.21; work attitudes received a 4.47; and work quality received a 4.42. Over half of these employers felt that former vocational students were better prepared for their jobs than were their counterparts who did not participate in vocational education. Despite the higher cost of telephone surveys, it was concluded that the telephone survey approach is to be preferred over the mail survey approach inasmuch as it yielded a higher response rate and was the only one of the two approaches that allowed those administering the survey to clarify its general intent and to elaborate on specific survey items as soon as questions arose in the respondents' minds. (Both survey instruments are appended.) (MN)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED250509

1981 Employer Follow-Up Survey of 1980 Completers and Leavers

DO NOT RUN THIS PAGE

September, 1981

Submitted by:

Instructional Development and Evaluation Associates, Inc.
Berkley, Michigan

CE040032

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☐ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

J Beltemeyer

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

19

Foreword

The 1981 Employer Follow-Up Study of 1980 Completers and Leavers was conducted by Instructional Development and Evaluation Associates, Inc. under contract with the Michigan Department of Education Vocational-Technical Education Service (VTES). Instructional Development and Evaluation Associates, Inc. would like to thank Dr. Bruce Grow from VTES and the Survey Support Center at Genessee Intermediate School District for their assistance throughout this project. Without such assistance, the study would have been much more difficult.

Table of Contents

		Page
	Foreword	i
I.	Overview of the Study	1
II.	Intent of the Study	3
III.	Methodology	7
	A. Initial Meetings	7
	B. Instrument Development Process	8
	C. Mail Survey Development and Processes	12
	D. Data Collection	15
	E. Sample Design	20
	F. Data Editing and Tape Production	21
	G. Data Analysis Plan	21
	H. Sample Considerations	22
IV.	Findings	23
	A. General Results	23
	B. Comparison of Mail Survey and Telephone Survey Methodology	31
V.	Conclusions	46
VI.	Recommendations	48
VII.	Appendices	50
	Appendix A - Phone Survey Instrument	
	Appendix B - Mail Survey Instrument	
	Appendix C - Interviewer's Guide	
	Appendix D - Letter to Employers	
	Appendix E - Data Tape Specifications	

Section I

OVERVIEW OF THE STUDY

The Michigan Department of Education conducts an annual follow-up survey of employers who have hired secondary vocational education completers and leavers. This survey collects data concerning the employer's perceptions of the vocational training received by the employee. Specifically, employers are asked to rate the vocational training received by the employee in terms of technical knowledge, work attitude, and work quality. In addition, the employer is asked to provide an overall rating of the vocational training received by the employee enrolled in vocational education to other employees who did not receive vocational training. These data are then used by the Michigan Department of Education to comply with federal requirements (PL 94-482, Title II) and to assess the overall effectiveness of secondary vocational education within the state of Michigan. These data are also of use to local educational agency personnel to assess the effectiveness of their vocational education programs at the local level.

This report has several purposes. The first purpose is to present the results of the Employer Follow-Up Survey of 1980 Completers and Leavers. Secondly, this report will document the procedures used to complete this survey. Third, this report provides a comprehensive review and analysis of the use of mail versus telephone survey methodology in the completion of the Employer Follow-Up Study. The fourth and final purpose of this report is to provide recommendations concerning future Employer Follow-Up Surveys.

Instructional Development and Evaluation Associates, Inc. addressed and completed three primary objectives as part of this survey endeavor. These included:

1. Obtain valid responses to the five federally mandated questions from at least 75% of all identified employers of former vocational education students trained in secondary schools in Michigan.

2. Provide the responses in the form of an edited unaggregated data tape using the technical specifications provided by the Michigan Department of Education.

3. Develop and validate a tested procedure for conducting an Employer Follow-Up Survey in succeeding years.

Instructional Development and Evaluation Associates, Inc. completed all three objectives. A response rate of 95% of identified employers was obtained. From these responses, an edited data tape meeting the technical specifications provided by the Michigan Department of Education was made and delivered to the Michigan Department of Education. Finally, recommendations relative to the most successful and cost efficient procedure for conducting future Employer Follow-Up Studies were provided.

The remainder of this report is divided into three sections. The first section provides a description of the intent of the study; the second a description of the methodology used; and the third the findings and conclusions developed based upon the data collected from the contacted employers.

Section II

INTENT OF THE STUDY

The intent of this study may be divided into three general categories: comparison of mail versus telephone survey methodology, use of the data, and limitations of the survey. Each of these areas will be discussed separately.

One of the major thrusts of the study was to compare the use of a mail survey methodology with a telephone survey methodology to complete the annual Employer Follow-Up Study. This comparison encompassed a number of variables including return rate, costs to conduct the survey, and response patterns. Return rates were compared on two levels; return rate by week of the study, and return rate after implementation of follow-up procedures. The cost comparison involved two primary areas. The first cost related to the number of person hours necessary to complete the survey tasks. Secondly, the cost of materials necessary to complete the survey tasks was calculated. These materials included duplication, postage, and telephone costs and other supplies. Finally, the third intent within the comparison of mail and telephone methodologies was to compare response patterns obtained for each of these surveys. This analysis was used to determine if there was a significant difference in the way respondents answered the telephone survey and the mail survey.

The second major intent of the study related to the use of findings. Three major audiences were identified as users of the information resulting from the Employer Follow-Up Survey. The

first was the Michigan Department of Education. The data resulting from the Employer Follow-Up Survey may be used by the Department in two areas. The first area is the completion of the federally mandated reporting requirements. The second is to provide an overall assessment of vocational education at the secondary level within Michigan. Specifically, data were collected from employers concerning their assessment of the effectiveness of vocational education in terms of developing work attitudes, technical knowledge, work quality, and overall preparation of students graduating from secondary vocational education programs. These data may be used to construct an overview across all vocational education programs in Michigan. Caution must be exercised, however, in the further breakdown of these data to regional Career Education Planning District (CEPD), or Office of Education (O.E.) Code levels. This is discussed in the next section of this report.

The second major target audience for which these data have been developed are local educational agencies. Where appropriate, local educational agencies may use the data available for their region to develop an overall assessment of the effectiveness of vocational education programs. These data can provide a comprehensive indication of potential areas of program change.

The third audience for these data are employers within the state of Michigan. The perceptions of employers included in the study may be used as promotional materials from which other employers, not previously employing a vocational graduate, may be made aware of the quality of vocational graduates. Since the intent of

vocational education programs is to place students in jobs, this would most certainly be a very important use of the employer follow-up data.

The next general area of discussion is the limitations of the study. These limitations are presented to acquaint the readers of this report with some of the methodological constraints inherent in this study. Four general limitations have been identified.

The first limitation is that these data report only employer reactions toward vocational education training programs. The data do not collect information concerning the reason behind the perception of the employer. Therefore, while general areas of program improvement may be identified, specific recommendations for program change are not available from these data. This is an area which may be considered for inclusion in future Employer Follow-Up Surveys.

The second limitation relates to the response population from which the sample was developed. The sample consists of employers of those students who gave permission for their employer to be contacted. Employers of those students who did not give this permission were not contacted. The results of the study, then, can only be generalized to employers of students giving permission to contact them.

The third limitation relates to the size of the sample from individual CEPD. The sample was designed to allow for generalization to the state as a whole. The number of employers drawn for

each CEPD is too small to allow for reliability within CEPD generalizations. CEPD's may, however, find their results to be a good first level assessment and be a pivotal point for future study.

The fourth and final limitation is that inferences cannot be made about employers within the various occupational fields. To do this, a larger sample would be necessary to maintain a high degree of precision. It may be useful in future surveys to identify employers according to their occupational field. This would allow for greater specificity in determining potential areas for programmatic change. If this is the case, it is recommended that the sample should be drawn so that generalization can be made to broaden Office of Education occupational areas.

Section III
METHODOLOGY

The Employer Follow-Up Survey of 1980 Completers and Leavers was implemented through a series of activities determined prior to the onset of the project. These activities are listed in sequential order below:

1. Initial meeting between staff from Instructional Development and Evaluation Associates, Inc. and staff from the Michigan Department of Education.
2. Meeting with staff from the Flint Survey Support Center.
3. Development of telephone survey instruments and survey process.
4. Pilot test of telephone survey instrument and process.
5. Development of mail survey instruments and process.
6. Data collection.
7. Follow-up procedures.
8. Data input.
9. Data editing.
10. Tape development.
11. Data analysis.
12. Writing of final report.

These 12 steps will be discussed within this section of the report.

A. Initial Meetings

A number of meetings were initially held to obtain the information needed to conduct the Employer Follow-Up Survey of 1980 Completers and Leavers. The two primary meetings are listed as

the first two of the twelve identified activities. The first meeting was between staff of Instructional Development and Evaluation Associates, Inc. and the Project Officer from the Michigan Department of Education, Dr. Bruce Grow. The purpose of this meeting was two-fold. First, it provided the contractor with information necessary to conduct the Employer Follow-Up Survey of 1980 Completers and Leavers. Secondly, information concerning the experiences of the previous contractor in the Employer Follow-Up Survey of 1979 Completers and Leavers was provided to insure that the Employer Follow-Up Survey of 1980 Completers and Leavers could build upon the experiences of the previous year.

The second meeting was held between the staff of Instructional Development and Evaluation Associates, Inc., Dr. Bruce Grow from the Michigan Department of Education, and staff from the Survey Support Center. The purpose of this meeting was to obtain a complete understanding of the student follow-up data collection process conducted by the Survey Support Center. This information was used to prepare record keeping instruments for the employer data provided to Instructional Development and Evaluation Associates, Inc. by the Survey Support Center.

B. Instrument Development Process

The instrument utilized for the Employer Follow-Up Survey was based primarily on the federally mandated questions presented in Figure 1. The development process resulting in the instrument encompassed six steps. These steps included:

Figure 1

EMPLOYER FOLLOW-UP QUESTIONS

1. VOCATIONAL TRAINING EVALUATION

Please rate the vocational training received by the individual in the following areas:

	Very Good	Good	Neutral	Poor	Very Poor
a. Technical knowledge	1	2	3	4	5
b. Work attitude	1	2	3	4	5
c. Work quality	1	2	3	4	5

2. OVERALL RATING

What is your <u>overall</u> rating of the vocational training received by this individual as it relates to the requirements of his or her job?

Very Good	Good	Neutral	Poor	Very Poor
1	2	3	4	5

3. RELATIVE PREPARATION

As a result of this person's vocational training, how would you rate his or her work group who did not receive such training?

_____ No basis for comparison

5 Individual is better prepared

3 Both are about the same

1 Individual is less prepared

1. Develop narrative to be used with instrument.
2. In-house pilot test.
3. Revise instrument based on results of in-house pilot test.
4. Pilot test the instrument with a sub-sample of respondents.
5. Revise instrument based upon results of field test.
6. Present revised instrument to the Project Officer for final approval.

The first step in the process, develop narrative to be used with the instrument, included the development of directions for the telephone interviewers to facilitate the survey process. The narrative provided a description of the survey, its purpose, and the ultimate use of information to the respondents prior to the actual survey questions. This was designed to fully inform the respondent about the survey. In addition, directions designed to facilitate the survey process for the interviewer were developed and included as part of the survey. These directions insured that the survey process was standardized across all telephone interviewers thus reducing the potential of interviewer bias.

The second through fifth steps followed in the instrument development process were pilot tests of the instrument. Two pilot tests were conducted for the Employer Follow-Up Survey. The first pilot test consisted of an in-house piloting procedure. The second consisted of a field test of the instrument.

The purposes of the in-house pilot test were to determine the extent to which the narrative provided for the telephone interviewers was sufficient for the interview process and the extent to which the questions and response options were adequately formated and clearly worded for use in the telephone survey process. Five steps were followed during the pilot procedures:

1. Review instrument and interview procedures with experienced telephone interviewers.
2. Obtain initial comments based upon instrument re-review from interviewers and modify instrument accordingly.
3. Interviewers conduct mock interviews with each other to test interview process.
4. Obtain feedback based upon mock interviews and modify instruments accordingly.
5. Conduct a second test of mock interviews with new interviewers to test the format, narrative, and interview procedures resulting from initial pilot testing.

One important aspect of the pilot test procedures was the extensive inservice given to the interviewers relative to the background of the project, interview process, interview format, and survey methodology concerns related to the project. The material presented in this inservice session better enabled the interviewers involved in the pilot test procedures to accurately assess the instruments used and provide input for potential modifications to the instruments as a result of the pilot test. Based upon the initial in-house piloting, the initial set of interview instruments was revised.

The second stage of the piloting process was a field test of the interview instruments. The interviewers involved in the

first stage of the pilot test process were also used for the field test. In addition, the field test utilized a random sample of approximately 20 employers from the actual list of employers to be surveyed during the Employer Follow-Up Survey of 1980 Completers and Leavers. The interviewers involved in this stage of the pilot test conducted the telephone interviews as though the actual interviewing was taking place. Upon completion of these telephone interviews, a meeting of the interviewers was held to discuss their reactions to the instrument and the interview process. Based upon the discussions at this meeting, final modifications were made to the instruments.

The last step of the instrument development process was to present the final instrument to the Michigan Department of Education Project Officer for approval. The final version of the instrument is presented in Appendix A.

C. Mail Survey Development and Processes

The mail survey was included as an activity within the Employer Follow-Up Survey of 1980 Completers and Leavers to obtain data relative to a variety of concerns. These concerns are identified below:

Obtain data relative to the cost of utilizing a mail survey methodology for future employer follow-up surveys.

Obtain data relative to the time necessary to conduct the employer follow-up survey using a mail methodology in the future.

Obtain data relative to the expected return rates for the Employer Follow-Up Survey using mail methodology.

Obtain information relative to the above three concerns in the event that a combination of mail and telephone survey methodology is utilized in future Employer Follow-Up Surveys.

Determine if the survey methodology used (mail versus telephone) introduces any response bias.

The mail survey component of the Employer Follow-Up Survey of 1980 Completers and Leavers involved nine steps. These steps are listed below.

1. Adapt instrumentation used in the telephone survey of employers for use in a mail survey methodology.
2. Pilot test the mail survey.
3. Refine mail survey based on pilot test results.
4. Develop log instrumentation to collect implementation information.
5. Draw sample of employers.
6. Mail survey to employers in the sample.
7. Implement follow-up procedure number 1 (mail).
8. Implement follow-up procedure number 2 (telephone).
9. Analyze data.

The instrument used in the mail survey portion of the study was a modification of the instrument used during the telephone survey portion of the study. The primary difference between the two surveys was in the narrative which accompanied the mail survey instrument. The narrative contained in the mail survey instrument was directed to the employer which enabled the employer to complete the survey. The narrative contained in the telephone

survey instrument was designed to facilitate the telephone interviewers interviewing process.

The mail survey instrument was subjected to a pilot test to determine any necessary modifications. The respondents used in the pilot test were employers in Michigan. These employers, however, were not those included in the Employer Follow-Up Survey of 1980 Completers and Leavers. Based upon the results of the pilot test, the mail survey instrumentation was modified and prepared for mail distribution. A copy of this instrument is found in Appendix B.

Step four involved the development of a log instrument to maintain data relative to the mail survey process. These data were used in the cost/benefit analysis of mail methodology vs. telephone methodology. Data collected included: time (person days) necessary to implement the mail survey methodology, costs associated with the mail survey methodology, problems encountered in using the mail methodology, and return rates for the mail survey methodology according to week of the project and segment of the mail survey methodology from which the return was obtained (original mailing or follow-up procedures). The log documented the information collected and enabled the inclusion of this information in the cost/benefit analysis to be conducted.

The fifth step identified in the process involved drawing the sample of employers to be involved in this portion of the study. Two samples were drawn; the first group of employers to receive the mail survey and the second group of employers to

receive the telephone survey. This second group was matched to the first group in terms of geographic location. The purpose of this group was to provide a valid comparison group from which the two survey methodologies could be compared. Approximately ten employers from each of the 53 CEPDs were randomly selected from a list of employers provided by the Survey Support Center. These employers constituted the sample to which the mail survey was sent. In addition, another ten employers per CEPD were randomly selected from each of the 53 CEPDs to serve as the comparison group.

The sixth step of the mail survey process involved mailing the survey to the employers selected to receive the mail survey. Approximately three days after the survey was mailed, the telephone survey was conducted with the comparison group of employers. This lapse period allowed for postal delivery thus insuring that data collected from the sample of employers receiving the mail survey and those employers in the comparison group interviewed by telephone were obtained at approximately the same time.

D. Data Collection

1. Telephone Survey

The first step in the development of telephone survey data collection procedures was to develop the content and format for a training session for the telephone interviewers conducting the survey. The training session consisted of two parts. The first part was a review of the information contained in the interview manual; each interviewer was provided with a manual. The interviewer manual contained information concerning the background

of the project, introduction to the instrument, a list of key responses to questions which an employer might ask during the survey process, and general instructions relative to the survey process. Staff from Instructional Development and Evaluation Associates, Inc. carefully reviewed this manual with participants to insure their understanding of its content. The second part of the training session consisted of two "dry-runs" through the actual survey process. The first dry run was between two staff members of Instructional Development and Evaluation Associates, Inc. The staff members role played various situations which a telephone interviewer might encounter. This provided telephone interviewers with exposure to some of the potential problems of the telephone survey. The second dry run was between pairs of telephone interviewers. Each telephone interviewer had the opportunity to run through the instrument with another telephone interview partner.

Throughout the training session, the staff members from Instructional Development and Evaluation Associates, Inc. conducting the training assessed the ability of each telephone interviewer to successfully conduct the survey process. Any interviewers identified as not being able to successfully conduct the survey were not included in the roster of telephone interviewers for the project.

Throughout the data collection process, the telephone interviewers maintained information on the Call Status Log (Figure 2). At the end of each day, the information recorded by

Telephone Interviewer: _____

Date: _____

Figure 2
CALL STATUS LOG

Student ID	Student Name	Supervisor's Name	Company Name	Supervisor's Phone Area Code	Supervisor's Phone Phone	CALL STATUS: Call Complete	Unavailable	Busy	Refused to Participate	Appointment for call back (Date and Time)	Other Comments	CEPD# LEA#
21												22

BEST COPY AVAILABLE

the interviewers on the Call Status Log was transferred to a master list maintained by the survey coordinator. The maintenance of the master list enabled Instructional Development and Evaluation Associates, Inc. to provide regular updates to the Michigan Department of Education concerning the status of the telephone survey process. In addition, the survey coordinator assigned telephone calls to the telephone interviewers based upon the information on the master Call Status Log. Training was provided to the telephone interviewers relative to the use of the Call Status Log during the initial training session. Additional information regarding the Call Status Log was provided in a separate document developed specifically for this purpose.

Telephone interviewers were informed of four situations which could arise during the data collection process. For each situation, a standardized set of directions was provided to the telephone interviewers. The four situations are as follows:

1. Identified employer indicates there is an individual more appropriate to respond to the survey.

   In this instance, the telephone interviewer was directed to contact the individual identified.

2. Identified employer doesn't remember student.

   In this instance, the telephone interviewer was directed to ask the employer if there is someone else who might remember the student. If there was, the interview was conducted with that individual. If there was not, it was noted on the Call Status Log.

3. Identified employer wishes to respond to a written survey rather than a phone survey.

   In this instance, the telephone interviewer made note of the request and the employer was mailed a written version of the survey.

4. Identified employer refuses to answer.

   In this instance, the telephone interviewer placed a tally in the column of the Call Status Log marked "Refused to Participate". Telephone interviewers were instructed not to try to force an employer to answer the survey questions.

Appendix C contains the Interviewer's Guide which was given to each telephone interviewer to facilitate the interview process. The final part of the training program allowed for telephone interviewers to clarify any questions.

The actual telephone survey process occurred from June 15, 1981 to July 30, 1981. During this time period a standardized daily procedure was followed. Telephone interviewers received their daily assignment and a Call Status Log from the survey coordinator. Throughout the day, each telephone interviewer logged every call made using the Call Status Log. Telephone calls were conducted from 6:00 a.m. until 12:00 p.m. The long calling period was necessary due to the diverse nature of the employers included in the sample. At the conclusion of each interviewer's call period, the Call Status Log was given to the survey coordinator who updated the master list. It is important to emphasize that every employer, where possible, was called until contact was made. In many instances, several calls were necessary to achieve this contact. Telephone calls were made throughout the United States.

2. Mail Survey Methodology

The initial meeting of the mail survey instrument was on July 1, 1981. The mail survey was designed to include two follow-up procedures. The first follow-up procedure occurred approximately 10 days after the initial mailing of the instrument. It consisted of mailing a cover letter along with a new survey to those employers from whom surveys had not yet been received. The letter asked for the employer's assistance in completing the survey and re-explained the purpose of the survey. A copy of this letter is contained in Appendix D. The identification of those employers not returning surveys was possible as each survey was coded with a location code.

The second follow-up procedure was conducted about two weeks after implementation of the first follow-up procedure. Those employers who had not yet returned the mail survey were contacted by telephone so that the information from these employers could be obtained. In addition, those employers contacted through the telephone follow-up were asked if there were problems in completing the mail survey. This information was useful in providing insight into improving future mail surveys.

E. Sample Design

The employers involved in the Employer Follow-Up Survey of 1980 Completers and Leavers were identified through a sampling procedure conducted by the Institute for Social Research in Ann Arbor, Michigan. Specific information relative to the sample

design is available through the Michigan Department of Education Project Officer. Instructional Development and Evaluation Associates, Inc. attempted to contact all employers identified in the sample. Thus, a further sampling procedure and design was not used by Instructional Development and Evaluation Associates, Inc. A sampling plan was developed for the mail versus telephone comparison. This plan is detailed in a later section of this report.

F. Data Editing and Tape Production

All data were verified at a 100% verification rate. This provided a "clean" data set from which a magnetic tape was made. The tape produced had the following specifications: EBCDIC, 9 track, RL=30, BL=900, BPI=1600, unlabeled. The format specification for the data on this tape are provided in Appendix E.

G. Data Analysis Plan

Three different analytical procedures were necessary to complete the objectives of this survey. The first procedure applied to all surveys returned. The remaining two procedures involved only the mail surveys and corresponding matched telephone surveys.

The first procedure involved a descriptive analysis of the respondents in terms of geographic location (CEPD), mean responses to the items on the survey, and calculation of return rates. The second procedure involved the use of inferential statistics to determine if employers surveyed by telephone responded significantly different from those surveyed using the

mail survey methodology. The third and final procedure involved the cost/benefit comparison of the telephone survey methodology and mail survey methodology. Each of these procedures is discussed more completely in the Findings section of this report.

H. Sample Considerations

As is the case for most studies, two types of validity were of concern in this study; internal and external validity. Internal validity refers to the way in which the sample data were collected. Internal validity concerns were controlled through efforts such as extensive interviewer training and periodic monitoring of calls to insure proper interview techniques.

The second type of validity was external validity. Bracht and Glass (1968) note that the findings based upon a sample are generalizeable only to the "accessible population" from which the sample was drawn. For the purposes of the Employer Follow-Up Survey of 1980 Completers and Leavers, the results of the survey are generalizeable only to those students employed in a related job who were not in the military and who gave permission for their employers to be contacted. This should be taken into considerations when the results of this survey are used and disseminated. From this group, 21% of all eligible employers were contacted yielding a sample reliable at an alpha = .05 level with 2.0% accuracy.

Section IV

FINDINGS

This section of the report is divided into two major parts. The first part provides general survey results. The second provides results of the telephone survey and mail survey methodology comparison.

A. General Results

1. Return Rate

A total of 3,002 employers were identified to be included in the Employer Follow-Up Survey of 1980 Completers and Leavers. Instructional Development and Evaluation Associates, Inc. obtained surveys from 2,851 of these employers. Thus, a return rate of 95% was achieved. This exceeded the 75% return rate mandated by the federal government. It was later determined that 449 employers of former students who indicated they were employed in "unrelated" occupations. Since the requirement was for "related", these employers had to be eliminated from the sample even though they had been contacted and the data collected. Thus, the number of valid employers to be contacted was 2,553 and the total number of valid surveys was 2,402 yielding a final return rate of 94%. Table 1 provides a breakdown of the return rate by CEPD. As Table 1 indicates, the response rates ranged from a low of 75.0% to a high of 100.0%.

Of major concern was the representiveness of the sample in regard to population in terms of OE occupational code. Table 2 provides a breakdown of the population and sample by OE code.

Table 1

RETURN RATE BY CEPD

CEPD Number	Total Employed Identified	Total Employed Contacted	Return Rate (%)
1	1	1	100.0
2	6	6	100.0
3	4	4	100.0
4	11	11	100.0
5	28	25	89.3
6	18	15	83.3
7	12	10	83.3
8	20	19	95.0
9	16	13	81.3
10	36	36	100.0
11	12	11	91.7
12	7	6	85.7
13	12	10	83.3
14	10	10	100.0
15	5	4	80.0
16	37	36	97.3
17	65	59	90.8
18	46	39	84.8
19	1	1	100.0
20	31	30	96.8
21	24	21	87.5
22	18	18	100.0
23	37	36	97.3
24	16	14	87.5
25	9	9	100.0
26	29	26	89.7
27	52	50	96.2
28	34	31	91.2
29	183	172	94.0
30	8	7	87.5
31	87	79	90.8
32	140	134	95.7
33	56	55	98.2
34	13	13	100.0
35	52	52	100.0
36	45	41	91.1
37	47	44	93.6
38	25	21	84.0
39	253	241	95.3
40	297	288	97.0
41	94	87	92.6
42	319	303	95.0
43	53	51	96.2
44	71	66	92.0
45	17	15	88.2
46	12	11	91.7
47	15	13	86.7
48	8	6	75.0
49	91	88	96.7

Table 1 Continued

CEPD Number	Total Employed Identified	Total Employed Contacted	Return Rate (%)
50	16	12	75.0
51	28	27	96.4
52	13	12	92.3
53	13	13	100.0
Total	2,553	2,402	Mean = 94.1

Table 2

O.E. Representation in Sample and Statewide Universe

Sequence Number	O.E. Code	Percent of Sample	Percent of State
1	01.0100	2.64	2.67
2	01.0200	0.00	0.04
3	01.0300	1.30	0.99
4	01.0301	0.36	0.22
5	01.0400	0.00	0.01
6	01.0500	1.16	0.74
7	01.0502	0.13	0.20
8	01.0504	0.13	0.04
9	01.0600	0.13	0.16
10	01.0700	0.13	0.03
11	04.0000	0.00	0.01
12	04.0100	0.00	0.06
13	04.0200	0.09	0.10
14	04.0600	0.04	0.01
15	04.0800	12.64	19.37
16	04.1800	0.00	0.03
17	04.1905	0.04	0.01
18	07.0101	1.65	0.77
19	07.0202	0.04	0.02
20	07.0203	0.00	0.03
21	07.0302	0.18	0.10
22	07.0303	4.06	3.15
23	07.0904	0.80	0.35
24	07.9801	0.04	0.08
25	07.9802	2.19	1.90
26	09.0201	1.52	1.32
27	09.0202	0.45	0.24
28	09.0203	2.99	4.20
29	09.0204	0.04	0.01
30	09.0205	0.45	0.16
31	14.0102	1.47	1.20
32	14.0104	0.00	0.02
33	14.0105	0.54	0.26
34	14.0200	0.18	0.23
35	14.0201	2.05	1.59
36	14.0202	0.00	0.03
37	14.0203	0.54	0.31
38	14.0303	0.85	0.60
39	14.0504	0.04	0.01
40	14.0703	6.43	6.69
41	14.0797	0.22	0.08
42	14.0798	0.40	0.29
43	14.0901	3.57	3.25
44	14.9700	1.16	1.48
45	14.9800	13.13	13.67
46	17.0100	0.76	0.34
47	17.0102	0.04	0.02
48	17.0200	0.22	0.12
49	17.0301	1.65	1.19

Table 2 Continued

Sequence Number	O.E. Code	Percent of Sample	Percent of State
50	17.0302	5.09	8.33
51	17.0400	0.00	0.01
52	17.0401	0.09	0.04
53	17.0600	0.13	0.03
54	17.0698	0.00	0.01
55	17.0700	0.76	0.32
56	17.0900	0.09	0.04
57	17.1000	0.58	0.74
58	17.1001	0.00	0.03
59	17.1002	0.00	0.03
60	17.1005	0.00	0.01
61	17.1098	3.80	4.08
62	17.1100	0.89	0.38
63	17.1200	0.31	0.20
64	17.1300	1.79	1.46
65	17.1398	0.22	0.21
66	17.1400	1.03	0.38
67	17.1401	0.40	0.10
68	17.1500	0.76	0.78
69	17.1501	0.00	0.01
70	17.1502	0.22	0.16
71	17.1503	0.40	0.33
72	17.1598	0.18	0.10
73	17.1900	2.01	1.76
74	17.1903	0.18	0.10
75	17.2101	0.00	0.07
76	17.2302	4.73	4.35
77	17.2305	0.09	0.03
78	17.2306	3.39	3.07
79	17.2602	4.60	3.21
80	17.2700	0.09	0.05
81	17.2802	0.18	0.17
82	17.3000	0.00	0.03
83	17.3100	0.85	0.80
84	17.3500	0.09	0.02
85	17.3600	0.31	0.10
86	17.3602	0.22	0.05
87	17.9800	0.00	0.03

A review of this figure reveals extremely close correspondence with only two occupations being more than 2% different between the population and sample. Neither of these occupations was off by more than 7%. It must be remembered, however, that although the sample is representative the sample is insufficient for generalization to 6 digit OE code.

2. Mode of Contact

Employers were contacted using 1 of 4 types of methods or combination of methods. The first and largest group of employers (N = 1,623, 67.6%) were contacted using only a telephone survey methodology. The second group (N = 359, 14.9%) received the mail survey. The third group (N = 404, 16.8%) was contacted using a telephone survey methodology and served as the comparison group for the mail survey group. The fourth group (N = 16, 0.7%) consisted of employers contacted using the telephone methodology but who requested a written survey.

3. Employer Evaluation of Vocational Training

Employers were asked to rate the vocational training received by the employee (vocational graduate) in terms of technical knowledge, work attitude, and work quality. In addition, employers were asked to provide an overall rating of the vocational training received by the employee as it related to the requirements of his or her job. Tables 3-6 present these results.

As Tables 3-6 reveal, employers provided positive ratings in each of the four areas assessed. Mean ratings ranged between

Table 3

RATING OF TECHNICAL KNOWLEDGE

Response	Number of Respondents	Percent of Respondents
Very Good	856	35.6
Good	1239	51.6
Neutral	271	11.3
Poor	31	1.3
Very Poor	5	0.2
TOTAL	2402	100.0

Mean Rating* = 4.21

*Based on a 5 point scale where 1 = very poor and 5 = very good.

Table 4

RATING OF WORK ATTITUDE

Response	Number of Respondents	Percent of Respondents
Very Good	1365	56.8
Good	861	35.8
Neutral	135	5.6
Poor	30	1.2
Very Poor	11	0.5
TOTAL	2402	100.0

Mean Rating* = 4.47

*Based on a 5 point scale where 1 = very poor and 5 = very good.

Table 5

RATING OF WORK QUALITY

Response	Number of Respondents	Percent of Respondents
Very Good	1232	51.3
Good	982	40.9
Neutral	156	6.5
Poor	26	1.1
Very Poor	6	0.2
TOTAL	2402	100.0

Mean Rating* = 4.42

*Based on a 5 point scale where 1 = very poor and 5 = very good.

Table 6

OVERALL RATING OF VOCATIONAL TRAINING

Response	Number of Respondents	Percent of Respondents
Very Good	924	38.5
Good	1177	49.0
Neutral	257	10.7
Poor	32	1.3
Very Poor	12	0.5
TOTAL	2402	100.0

Mean Rating* = 4.24

*Based on a 5 point scale where 1 = very poor and 5 = very good.

4.21 and 4.47 on the 5 point scales (1 = very poor, 5 = very good). In the ratings of work attitude and work quality, over one-half of the employers interviewed selected the "very good" option. Across all areas, no less than 87.2% of the employers chose either the "very good" or "good" rating category. This provides strong testimony to the positive image of vocational training exhibited by employers.

4. Comparison of Vocational Education Graduates to Other Employers

The employers were asked to compare the employee who had completed vocational training to other employees who started in the same or a similar job. Table 7 presents the responses to this item. As Table 7 indicates, almost 60.0% of all employers surveyed indicated the employee who had graduated from a vocational program was better prepared to begin employment than other employees. The mean rating of 4.37 for this item indicated that, overall, employers felt graduates from vocational programs were better prepared to begin employment than employees not graduating from a vocational program.

B. Comparison of Mail Survey and Telephone Survey Methodology

This section of the Findings will present data comparing the use of the telephone survey methodology to the mail survey methodology. Prior to the onset of the survey, the employers to be included in the mail survey sample and telephone survey comparison group were identified. To accomplish this, an equal

Table 7

COMPARISON OF VOCATIONAL EDUCATION GRADUATES TO OTHER EMPLOYEES

Response	Number of Respondents	Percent of Respondents
Better Prepared	1439	59.9
About the Same	534	22.2
Less Prepared	51	2.1
No Basis for Comparison	378	15.7
TOTAL	2402	100.0

Mean Rating* = 4.37

*Rating based on a 5 point scale where 5 = better prepared, 3 = about the same, and 1 = less prepared.

number of employers were identified for the mail survey and the telephone survey. Employers were selected from each CEPD in Michigan.

The data resulting from this portion of the study were used to make five comparisons. The first comparison involved the response patterns to the five questions on the survey. The second comparison concerned the response rates obtained for each type of survey methodology. The third comparison involved the person hours necessary to complete the surveys for each methodology type. The fourth comparison involved the costs of conducting each survey methodology type. Each of these four comparisons is discussed separately in this part of the report. The fifth and final comparison involved a general comparison of the pros and cons for each of the methods as seen by the interviewers involved in the survey process.

1. Comparison of Response Patterns

This comparison related to the issue of whether employers would respond differently to a mail survey format than a telephone survey format. Independent t-tests were used to determine if the mean ratings on all five items differed significantly between the two groups. Table 8 presents the results of these t-tests. Since employers were randomly selected and assigned to the mail or telephone group, similar responses would be expected if the methodology of survey was not a factor in one's response to questions.

The results from this comparison were consistent across all five items. In all cases, the group of employers contacted using

Table 8

T-TEST RESULTS: MAIL VERSUS TELEPHONE SURVEY METHODOLOGY

Item	Group	Number	Mean	S.D.	DF	t-value	Significance*
Technical Knowledge	Telephone	404	4.26	0.65	761	4.03	Significant
	Mail	359	4.05	0.77			
Work Attitude	Telephone	404	4.56	0.62	761	5.77	Significant
	Mail	359	4.25	0.87			
Work Quality	Telephone	404	4.56	0.61	761	7.05	Significant
	Mail	359	4.20	0.79			
Overall Rating	Telephone	404	4.33	0.68	761	5.87	Significant
	Mail	359	4.02	0.78			
Comparison of Preparation	Telephone	404	4.50	0.92	671	4.92	Significant
	Mail	359	4.11	1.16			

*Significant at alpha = .05.

34

the telephone survey process responded to the items in a significantly more positive manner than did those employers contacted using the mail survey methodology. This may be a reflection of the ability to clarify questions for the employer while using the telephone survey methodology thus enabling a more accurate assessment of the training received by the vocational graduate. The implications of this finding will be discussed in a later point in this report.

2. Comparison of Response Rates

Detailed records were maintained by Instructional Development and Evaluation Associates, Inc. relative to the responses received on each type of survey methodology. As the records pertain to all telephone survey calls, response rate data presented here are based upon 2,043 employers which represents the total number of employers contacted by telephone.

Records were maintained as to the reasons surveys were not completed. Relative to the full telephone survey, a total of 85 (4.0%) of all employer interviews were unable to be completed due to the following reasons:

1. Thirty-eight supervisors reported that the employees had never been employed at the listed business, they had no knowledge of the employee, or they did not feel qualified to comment on the vocational training.

2. Forty-seven interviews were not obtained because of the following reasons:
   a. There was no such business listed or it no longer existed.
   b. It was impossible to contact the employer because of illness. The employer was overseas, no longer employed at the business, had died, or was on an extended vacation.

c. The employee was not employed long enough for the employer to evaluate the employee's training.
d. The employer was not allowed by company policy to answer any questions concerning employees.
e. The employer would not respond to the survey without the employee's written consent.
f. The interview could not be completed because of lack of information supplied to the contractor such as no student name or incomplete employer listings.

It should be noted that every effort was made by the staff of Instructional Development and Evaluation Associates, Inc. to secure surveys from employers. If respondents to the telephone survey preferred, a survey was mailed with a cover letter, requesting that they complete the survey and return it to us. A total of 16 such surveys were mailed.

In regard to the sample of employers who were contacted by telephone and matched to the mail contacts, a total of 14 (3.3%) could not be completed. Thus, for the matched surveys, a 9[illegible]7% return rate was obtained for telephones. The reasons for non-completion are the same as those previously described for the full contingent of employers.

Data relative to the incomplete mail surveys follows. A total of 66 (15.5%) of the 425 surveys mailed were not completed. Reasons for the non-completion include:

1. The employer did not know the employee.
2. The employer did not understand the survey and would not complete it because employee's present work was unrelated to the vocational training the employee received.
3. The employer refused to participate.

4. The employer was unavailable to complete the survey.

5. The survey was returned because the business no longer existed.

As indicated earlier, an overall response rate of 94% was achieved for this survey. The return rate for the entire telephone survey alone was 2,043 out of 2,128 or 96%. The return rate for the matched telephone survey was 404 out of 418 or 96.7%. The return rate for the mail survey was 359 out of 425 or 84.5%. Thus, there was a differential of slightly more than 10% between the two survey methodologies.

As was mentioned earlier in this report, when the local school districts determined the sample of employers to be included in this study they mistakenly included 449 employers who did not meet the federal requirements for inclusion. This error was not discussed until all data were collected. Sixty-eight of the mailed employers and seventy-one of the matched phone sample were in this group. There was no way to practically exclude this group from certain analysis, thus there are at times different numbers of subjects included within the analyses. This does not invalidate the results but the reader should be aware of this when considering various figures and percentages.

Table 9 presents a further breakdown of the return rate for the mail survey for each phase of the data collection. The important feature of Table 9 is that without the telephone follow-up procedure, it is questionable as to whether the number of total responses which would have been sufficient for federal reporting. Sufficient here is considered to be 75%.

Table 9

MAIL SURVEY RESPONSE RATE

Procedure	Number of Surveys Returned	Cummulative Returned	Cummulative Percent*
Initial Mailing	196	196	39.8%
Follow-Up Mailing	141	337	68.4%
Phone Follow-Up	90	427	86.6%
Total	427	427	86.6%

*Based on N=493 surveys mailed.

3. Person Hours Necessary to Complete Each Survey Methodology

The number of person hours necessary to complete the survey process was maintained, by activity, for the mail surveys and the comparison group of telephone surveys. Table 10 presents these data. It should be noted that the times provided in the figure represent those times which relate solely to the particular collection methodology. Much additional time is involved in conducting the survey regardless of the collection methodology. As these figures reveal, the telephone survey process took approximately 150% of the staff time that the mail survey took. However, in terms of calendar time, the telephone survey was shorter since follow-up in this process can be daily and not involve the traditional waiting period between mailings of a survey.

4. Cost of Mail Versus Telephone Survey Methodology

Approximate records were kept relative to the cost of conducting the actual survey process for the mail survey and the comparison telephone survey. Tables 11 and 12 present these data. As these tables indicate, the telephone survey process does more than the mail survey. The primary cost differential was found in the personnel and telephone line items. As was the case for the time allocations, the cost figures focus upon differential costs for the two methodologies rather than on all costs for the survey. It should be remembered that the telephone survey resulted in a higher return rate than in the mail survey. Considering the cost figures provided, it was found

Table 10

COMPARISON OF PERSON HOURS NECESSARY TO COMPLETE SURVEY TASKS USING THE MAIL AND TELEPHONE SURVEY METHODOLOGIES

Task	Number of Person Hours Mail	Telephone
Develop instrument to fit a particular collection methodology	2	4
Reproduce instrument (IDEA, Inc. and Printer)	1	3
Staff training	0	4
Locate telephone number or address information	10	6
Collect data (includes telephone calls, envelope addressing, and stuffing, etc.)	70	150
Follow-up (calls to non-respondents and incomplete respondents)	30	10
Data verification	15	15
TOTAL	128	192

Table 11

COSTS ASSOCIATED WITH TELEPHONE SURVEY

Personnel		$1532.50
Supervisor (4 hours x $15.00/hour)	$ 60.00	
Coordinator (25 hours x $10.00/hour)	250.00	
Staff (160 hours x $7.50/hour)	1200.00	
Clerical (3 hours x $7.50/hour)	22.50	
Fringe (18%)		275.85
Supplies		87.88
Duplicating	$ 35.00	
Postage	2.88	
Miscellaneous	50.00	
Phone (approximately 500 calls x $1.50/call)		750.00
Overhead (8%)		211.70
TOTAL		$2857.93

Table 12

COSTS ASSOCIATED WITH MAIL SURVEY

Personnel		$1000.00
Supervisor (2 hours x $15.00/hour)	$ 30.00	
Coordinator (10 hours x $10.00/hour)	100.00	
Staff (76 hours x $7.50/hour)	570.00	
Clerical (40 hours x $7.50/hour)	300.00	
Fringe (18%)		180.00
Supplies		509.40
Postage	$284.40	
Printing	175.00	
Miscellaneous	50.00	
Telephone (90 calls x $1.50/call)		135.00
Overhead (8%)		145.95
TOTAL		$1970.35

that the average completed phone survey was $6.02 and the average completed mail survey was $4.61.

5. Positive and Negative Factors of the Mail and Telephone Survey Methodology

The experiences of Instructional Development and Evaluation Associates, Inc. in the implementation of the Employer Follow-Up Survey of 1980 Completers and Leavers resulted in the identification of several positive and negative features of each type of survey methodology. The factors identified for each type of survey methodology are presented separately.

Mail Survey Methodology

The one positive feature identified for the mail survey methodology was that fewer staff are necessary to implement the procedure. The primary tasks of the mail survey methodology involve clerical type activities. Depending upon the timeline of the survey, one or two clerical staff could complete the tasks necessary to mail the surveys and maintain the necessary records.

Several negative features were identified for the mail survey methodology. These features were:

The rate of return for the mail survey methodology was slower than that of the telephone survey methodology. One reason for this is the time period necessary between the follow-up processes. In addition, the mail survey methodology is subject to normal periods of mail delivery as well as abnormal delays attributed to the postal service.

The overall return rate for the mail survey methodology was lower than that of the telephone survey methodology.

The mail survey methodology did not provide any opportunity for the clarification of questions which might arise while an employer completed the follow-up survey. Data to support this statement comes from two sources. The first source is a question on the mail survey asking respondents if they had problems completing the survey. Forty-one respondents (9.6%) indicated they had problems completing the mail survey. Secondly, a review of the mail surveys returned identified thirty (7.0%) surveys for which the employer needed to be called to complete the survey or clarify a response on the survey.

The mail survey methodology did not allow for control over whether or not the proper individual completed the survey. In many instances in the telephone survey methodology, the telephone interviewer needed to have the survey completed by an individual other than the supervisor listed on the log of employers provided by the Survey Support Center. This was especially true of graduates working for large companies.

Telephone Survey Methodology

Based upon the experiences of this survey, there were no major negative features of the telephone survey methodology. The single feature which needs to be considered in the utilization of this methodology is the need to have well-trained telephone interviewers. This necessitates having a training session for the telephone interviewers.

Several positive features were identified for the telephone survey methodology. These included:

1. more control over the survey process in terms of the employer interview;

2. survey process was completed in a shorter period of time than was possible using the mail survey methodology;

3. interviewer was able to determine if the supervisor listed on the employer contact log provided by the Survey Support Center was the most appropriate person to complete the survey;

4. process was not constrained by the need to allow time for mailing the surveys;

5. follow-up could be virtually instantaneous although it was usually the next day;

6. interviewers were able to differentiate between employers for which erroneous telephone numbers or addresses were provided from those who did not wish to complete the survey. This was not possible using the mail survey methodology.

Section V

CONCLUSIONS

Based upon the data presented in this report, several conclusions were reached.

1. A total of 2,553 employers were identified as the sample of employers to be included in Employer Follow-Up Survey of 1980 Completers and Leavers. A total of 2,402 employers were contacted. Thus, 94% of all employers were contacted and completed all questions on the survey. This far exceeded the required 75% response rate.

2. Employers reacted very positively to the vocational training received by the former vocational student they employed. Employers were asked to rate the vocational training received by the former student in terms of technical knowledge, work attitude , and work quality using a 5 point scale where 1 = very poor and 5 = very good. Technical knowledge received a mean rating of 4.21, work attitude a 4.47, and work quality a 4.42. Employers were also asked to provide an overall rating of the vocational training received by the former student. In response to this item, a mean rating of 4.24 was obtained. This reflects a positive attitude of employers toward vocational training.

3. Employers were asked to compare the former student to other employees who had not received vocational training and who started at the same or a similar job. Over one-half (59.9%) of the employers interviewed indicated the former vocational student was better prepared for the job than were employees who did not receive vocational training. Conversely, only 2.1% indicated the former student was less prepared than other employees. A mean of 4.37 was obtained for this item where 5 = better prepared, 3 = the same as, and 1 = less prepared.

4. A comparison of the telephone survey methodology and mail survey methodology revealed several key findings. These included:
   a. The telephone survey yielded a higher response rate. The return rate exceeded that of the mail survey by over 10.0% even after the completion of two follow-up procedures. It should be noted that if a telephone methodology had not been used as a second follow-up procedure, it is questionable if a 75% response rate would have been achieved.

b. Employers contacted by telephone response to all 5 items on the survey significantly more positively than the employers contacted by mail.
c. Questions employers encountered in the completion of the survey could be answered immediately if the employer was contacted using telephone methodology. This was not true when the mail methodology was used.
d. In general, the contractor was able to have greater control over the telephone methodology, in terms of employer responses, than the mail methodology. This was especially critical in the clarification of the survey intent and specific survey items.

Section VI

RECOMMENDATIONS

The data and conclusions presented have resulted in the identification of several recommendations for future Employer Follow-Up Surveys.

1. The employers contacted to complete the Employer Follow-Up Survey of 1980 Completers and Leavers were extremely cooperative in providing the information requested. Based upon this, the Michigan Department of Education may want to consider the inclusion of several additional questions which would provide useful data for program decision-making. Areas of specific interest might be:
   a. Employee qualifications which the employer seeks when hiring new employees.
   b. Specific areas in which additional training for the former student would have been of benefit to the student and employer.

2. The Michigan Department of Education should consider the addition of one or two key questions of importance to a CEPD to the employer survey for that CEPD. This would enhance the ability of the data on the local level.

3. The Michigan Department of Education should consider the development of an employer follow-up package to enable local educational agencies to conduct a more indepth employer follow-up with a larger number of employers from their area. This would enable local educational agencies to develop an employer data base for use in program decision-making. The package should include intensive inservice in the follow-up process, instrument development to meet the specific information needs of the area, and data analysis suggestions.

4. Based upon the comparison of the telephone and mail survey methodologies, it is recommended that, given the time and return rate constraints of the Employer Follow-Up Survey, the telephone survey methodology be used in the future. This method was more costly than a mail methodology, however, it provided the higher response rate as well as the ability to clarify questions employers may have about the survey items.

5. The data collected indicated that employers in Michigan were very positive toward the vocational

training perceived by the former students they employed. This information may be of use in promotional activities directed toward employers both within and outside of Michigan.

6. Although the sample was representative of the OE 6 digit codes, it was too small for generalization at this level. However, given the size of the sample, it is reasonable to expect that valid results would be obtained for at least some of the 2 digit OE areas. Analysis at this level would provide for more of an informational data base for use in decision making. Further it is strongly recommended that in the future the sample be stratified such that generalization can be made at the 2 digit OE areas. This would probably provide for a sufficient data base as most of the 6 digit OE codes represent less than 2% of the state wide universe.

7. Much time was spent in the location of incomplete data on the employer logs submitted by the Survey Support Center. It is recommended that in the future these logs be submitted to the contractor in completed form.

8. A tremendous amount of time, expense, and energy were put forth in obtaining and analyzing data from 449 employers who it was later discovered did not meet the criterion for inclusion into the study. Since the error occurred in the majority of CEPDs it is reasonable to assume that there was a serious communication problem in terms of the directions for drawing the sample. It is therefore strongly suggested that new directions be established and piloted to eliminate future problem. In a similar vein, it is recommended that either the Survey Support Center or the contractor conducting the survey be responsible for determining the sample. This would take some of the burden off local educators and rechannel the task to individuals who are trained and experienced in this facet of conducting surveys.

Section VII

APPENDICES

APPENDIX A

Phone Survey Instrument

Student Name _____

Student I.D. _____

CEPD Number _____

Employer Follow-Up Telephone Survey

Hello, my name is _____ from Instructional Development and Evaluation Associates, Inc. We are conducting a survey for the Michigan Department of Education concerning the training of students who were enrolled in high school vocational programs in 1980. The purpose of the survey is to obtain the immediate supervisor's opinion of the adequacy of the vocational training former students receive while in school. _____ has given us permission to interview you as (his/her) supervisor and to evaluate (his/her) high school vocational training. The questions will only take a few minutes.

1. VOCATIONAL TRAINING EVALUATION

Please rate the vocational training received by the individual in the following areas?

	Very Good	Good	Neutral	Poor	Very Poor
a. Technical knowledge	5	4	3	2	1
b. Work attitude	5	4	3	2	1
c. Work quality	5	4	3	2	1

2. OVERALL RATING

What is your overall rating of the vocational training received by this individual as it relates to the requirements of his or her job?

Very Good	Good	Neutral	Poor	Very Poor
5	4	3	2	1

3. As a result of this individual's vocational training, how would you rate this individual compared to other individuals who have started in the same job or a similar job?

_____ This individual is better prepared.

_____ Both are about the same.

_____ This individual is less prepared.

_____ I have no basis for comparison.

_____ I don't know.

APPENDIX B

Mail Survey Instrument

Employer Follow-Up Survey

Dear Employer,

"Instructional Development and Evaluation Associates, Inc. has been contracted by the Michigan Department of Education to conduct a study of employers who have hired recent completers and leavers of vocational education programs. The survey has been designed to obtain employer reactions to the vocational education training received by vocational education students whom they are employing.

The survey will only take a minute or two to complete and will provide valuable information relative to vocational education in Michigan. After you complete the survey, simply staple it closed and drop it in the mail. Your responses will remain strictly confidential.

The former student whose name appears below has given his/her permission for you to provide us with the information contained in the survey. If you have any questions, please do not hesitate to contact Jeffrey T. Resnick, or Marilyn Cerny (313) 541-1680, of Instructional Development and Evaluation Associates, Inc.

We look forward to receiving a response from you. Thank you for your cooperation.

Former
Student Name_____

BEST COPY AVAILABLE

Student I.D. _____

CEPD Number ___ _____

EMPLOYER FOLLOW-UP SURVEY

1. Please rate the vocational training received by the individual in each of the three areas listed below using a 5 point scale where:

   5 = Vocational training in this area was very good.
   4 = Vocational training in this area was good.
   3 = I feel neutral about the individual's vocational training in this area.
   2 = Vocational training in this area was poor.
   1 = Vocational training in this area was very poor.

	Very Good	Good	Neutral	Poor	Very Poor
a. Technical knowledge	5	4	3	2	1
b. Work attitude	5	4	3	2	1
c. Work quality	5	4	3	2	1

2. What is your overall rating of the vocational training received by the individual as it relates to the requirements of his or her job? Check only one response.

   _____ Very Good
   _____ Good
   _____ Neutral
   _____ Poor
   _____ Very Poor
   _____ The job is not related to the individual's training
   _____ I don't know

3. As a result of this individual's vocational training, how would you rate this individual compared to other individuals who have started in the same job or a similar job?

   _____ This individual is better prepared.
   _____ Both are about the same.
   _____ This individual is less prepared.
   _____ I have no basis for comparison.
   _____ I don't know.

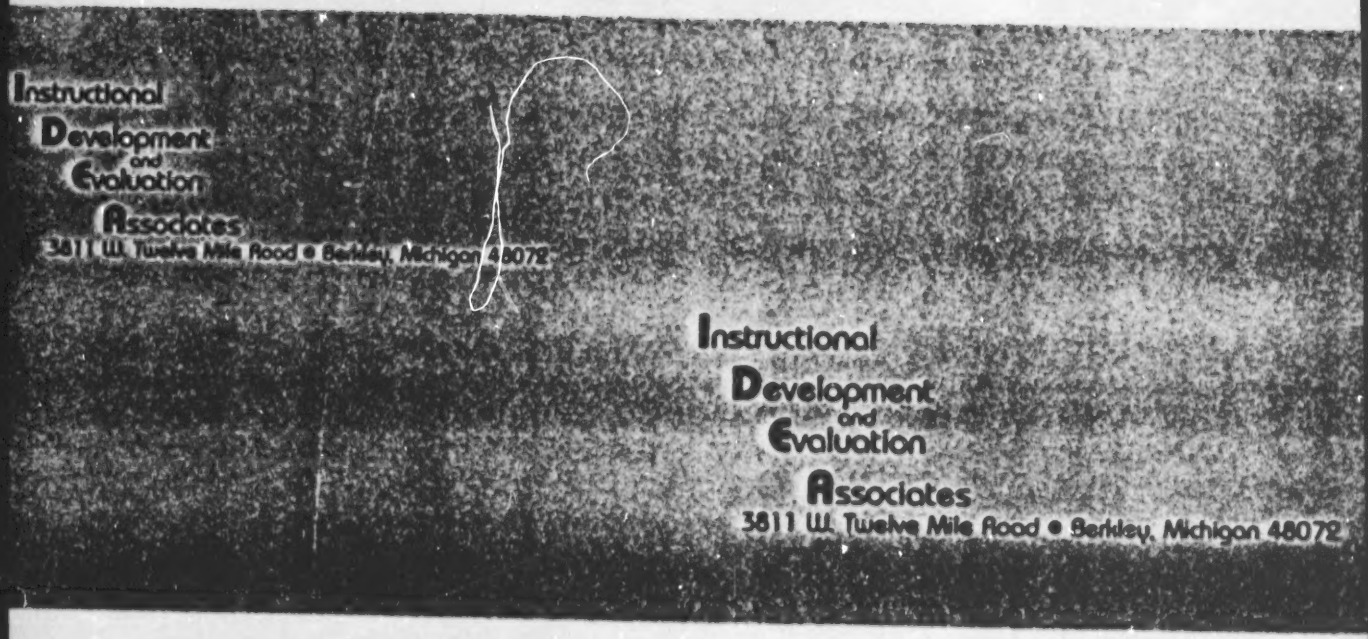
4. Did you have any problems answering these questions?

   _____ Yes _____ No

   If yes, what were they and how could they be corrected?

That concludes our survey. Thank you for your time. To return the survey simply staple it shut and drop it in a mailbox.

BEST COPY AVAILABLE



BEST COPY AVAILABLE

APPENDIX C

Interviewer's Guide

Training Instructions for Employer Follow-Up Telephone Interviews

1. Materials to be Used for Interviewing

When you report to work at your scheduled time each day you should have the following materials at your assigned telephone station:

a) a master copy of the training instructions and definitions sheet.

b) copies of the interview survey instruments with student identification.

c) copies of the interview call status log.

d) your assignment sheet of supervisors to call for the day.

2. Telephone Interview Format, and Interview Survey Instruments

These instruments as well as the purpose of the survey will be reviewed at the training session.

3. Interview Call Status Log

These forms, when completed, will be the primary documentation source for the interviewing. It is of primary importance that these records be accurately maintained. The recordings to be entered on the call status log are as follows:

a) From the daily assignment sheets you are given, enter the Student Identification Number, the Student's Name, the Supervisor's Name, and the Company Name, CEPD and LEA numbers before making each call.

b) Enter the phone number in the appropriate space when this has been obtained.

c) Check if the interview was completed, whether there was a refusal to respond to the interview, or whether the supervisor could not be reached. If the supervisor was not available, check the times or date when he will be available for an interview.

d) List any special comments about or problems with the phone interview in the space provided on the interview call status log.

4. Obtaining Telephone Number If None are Given

You will be responsible for obtaining the phone numbers of the supervisors on your calling list. Do this by calling phone information for the city in which the company is located before each phone call. Once the phone number has been obtained from information, record it in the appropriate space on the interview call status log.

5. Reaching the Supervisor and Explaining the Interview

a) It is mandatory that you interview the supervisor shown on the assignment sheet, as this is the name and permission given by the student. DO NOT SUBSTITUTE RESPONSES FROM ANYONE ELSE.

b) If the supervisor is not available for the interview, you should ask when you can call back and explain that your phone number is likely to be busy. If necessary, you can give him/her your phone number and the time to call you back (while you will be there that day), but do this only as a last resort, as this process will make it difficult to control the master phone call assignment list. If you give out a phone number and a time to call you back, be sure to explain that if you are not called back then, the supervisor will be recalled by someone the next day. Again, IT IS PREFERABLE TO GET A TIME TO CALL THE SUPERVISOR BACK RATHER THAN GIVING HIM/HER YOUR PHONE NUMBER TO RETURN A CALL.

c) You should not have to say anything to the supervisor about the interview, other than what is printed on the interview survey instrument. You may, however, stress the following if it is necessary to get the supervisor's cooperation for the interview.

1. That this is an evaluation of the former student's vocational training and not a personal evaluation of the student.
2. Stress that the information will be aggregated and kept strictly confidential.
3. Explain the State's purpose for the survey as explained at the training session.

APPENDIX D

Letter to Employers

STATE OF MICHIGAN

DEPARTMENT OF EDUCATION

VOCATIONAL-TECHNICAL EDUCATION SERVICE
Box 30008, Lansing, Michigan 48909

PHILLIP E. RUNKEL
Superintendent
of Public Instruction

STATE BOARD OF EDUCATION
(with years when terms expire)
1983
SILVERRENIA O. KANOYTON
BARBARA ROBERTS MASON
1985
DR. GUMECINDO SALAS
JOHN WATANEN, JR.
1987
BARBARA DUMOUCHELLE
ANNETTA MILLER
1989
NORMAN OTTO STOCKMEYER, SR.
DR. EDMUND F. VANDETTE
Ex-Officio
GOV. WILLIAM G. MILLIKEN

June 16, 1981

Dear Employer:

Every year the Michigan Department of Education, through local school districts, conducts a statewide follow-up survey of former vocational education students. A sample of employers of these former students is also contacted as part of this follow-up process. The purpose of the employer contacts is to obtain the immediate supervisor's opinion of the adequacy of the vocational training as demonstrated in the work setting.

The employee/former student whose name appears on the survey has given written permission for you to answer questions about his/her vocational training. An independent research firm working with the Department of Education is conducting this survey and has supplied an attached survey for your use. The firm is Instructional Development and Evaluation Associates, Inc. (IDEA) of Berkley, Michigan, and will be glad to clarify questions you might have. Call collect (313) 541-1680.

If is important that you, the immediate supervisor, personally respond to the questions. Your answers will be kept in strict confidence. As you can see, the questionnaire is both brief and specific.

The information that you and other supervisors provide will assist schools to assess and improve vocational training for Michigan high school students. We would greatly appreciate your completing the survey as soon as possible. Your participation in this mailed survey is both important and appreciated.

Sincerely,

Arnold Loomis
State Director
Vocational-Technical
Education Service

Eric M. Gordon, Ph.D.
Director of Instructional Development
and Evaluation Associates, Inc.

Attachment

APPENDIX D

Tape Specifications

BRUCE GROW TAPE FORMAT

9-TRACK EBCDIC, 1600 BPI
NON-LABELED
RECORD LENGTH=30
BLOCKSIZE=900
DATA ON FILE 1 (NL)

FIELD POSITION	VARIABLE	DATA CODES
1-6	STUDENT I.D.	
7-8	CEPD	
9-13	LEA	
14 15 16 17	WORK KNOWLEDGE WORK ATTITUDE WORK QUALITY OVERALL RATING	1=VERY POOR 2=POOR 3=NEUTRAL 4=GOOD 5=VERY GOOD
18	COMPARISON	1=LESS PREPARED 2=ABOUT THE SAME 3=BETTFR PREPARED
19	SURVEY METHOD	1= 2= 3=MAIL 4=PHONE
20	PROBLEMS WITH MAIL OR PHONE SURVEY	0=NO RESPONSE OR NOT APPLICABLE 1=YES 2=NO
21	QUESTION 5: RELATIONSHIP OF TRAINING TO JOB	0=NO RESPONSE 1=A LOT 2=SOME 3=HARDLY ANY 4=NONE 8=MISSING (NO I.D. ON STATE TAPE) 9=MISSING (DUPLICATE I.D.)
22	QUESTION 11: ARE YOU IN THE MILITARY?	0=NO RESPONSE 1=YES 2=NO 8=MISSING (NO I.D. ON STATE TAPE) 9=MISSING (DUPLICATE I.D.)
23-28	SIX DIGIT O.E. CODE	888888=MISSING (NO I.D. ON STATE TAPE) 999999=MISSING (DUPLICATE I.D.)